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Effective Copulation and Copulation Time on Female Reproductive Development in *Diabrotica vergifira*

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EFFECTIVE COPULATION AND COPULATION TIME ON FEMALE REPRODUCTIVE DEVELOPMENT IN *Diabrotica virgifera*

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It has been established that the western corn rootworm (WCR--*Diabrotica virgifera*) requires a prolonged copulatory period of 3-4 hours for maximal insemination to occur. In addition, it has been suggested that mating speeds ovarian development in the WCR. This study was performed to determine the relationship between copulation and reproductive development in the SCR. Using 11-day post-emergence virgin WCR beetles, five groups of varying copulatory durations were established: (1) unmated; (2) 15 minutes in copula; (3) 1 hour in copula; (4) 2 hours in copula; and (5) mated until completion. The effects on reproductive development were examined utilizing the following criteria: reproductive status, size of ovaries, egg laying patterns and total female weight. The results suggest substantial increases in weight, ovarian status, ovarian size and frequency of egg laying with longer copulatory periods.